

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
5 April 2001 (05.04.2001)

PCT

(10) International Publication Number
WO 01/23075 A1

- (51) International Patent Classification⁷: **B01D 53/86**, C01B 17/04
- (74) Agent: PRINS, A., W.; Vereenigde, Nieuwe Parklaan 97, NL-2587 BN The Hague (NL).
- (21) International Application Number: PCT/NL00/00695
- (22) International Filing Date:
29 September 2000 (29.09.2000)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
99203194.8 30 September 1999 (30.09.1999) EP
- (71) Applicants (*for all designated States except US*):
GASTEC N.V. [NL/NL]; Wilmersdorf 50, NL-7327 AC Apeldoorn (NL). STORK ENGINEERS & CONTRACTORS B.V. [NL/NL]; Radarweg 60, NL-1043 NT Amsterdam (NL).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): BORSBOOM, Johannes [NL/NL]; Frans Halskade 104, NL-2282 VC Rijswijk (NL). VAN NISSELROOIJ, Petrus, Franciscus, Maria, Theresia [NL/NL]; Van Welderenstraat 50, NL-6511 MN Nijmegen (NL).
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).
- Published:**
- With international search report.
 - Before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments.
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: PROCESS FOR THE REMOVAL OF SULPHUR COMPOUNDS FROM GASES

(57) Abstract: The invention is directed to a process for the catalytic reduction of sulphur dioxide from a gas mixture at least containing 10 vol. % of water, in which process the gas mixture is passed over a sulphur resistant hydrogenation catalyst in sulphidic form, at a space velocity of at least 2000 h⁻¹, in the presence of a reducing component, preferably at least partly consisting of hydrogen, in a molar ratio of reducing component to sulphur dioxide of more than 10 up to 100, at a temperature of 125 °C to 300 °C, followed by passing the gas mixture, after the said reduction, through a dry oxidation bed for the oxidation of sulphur compounds, more in particular hydrogen sulphide, to elemental sulphur.

WO 01/23075 A1